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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,146

10/14/2004

Masami Kujirai

2004-1547A

1988

513 7590 12/20/2006  
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EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1712

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/20/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/511,146	KUJIRAI, MASAMI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Margaret G. Moore	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 to 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 to 6, 8 to 14 and 17 to 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Angeline.

Angeline teaches an aqueous silane coupling agent used to coat glass. Please see Table 1 on column 8. This shows a composition containing a silane coupling agent in an amount as claimed. This coupling agent meets the requirement of claim 2. The composition also contains a surfactant in an amount meeting claim 3. It is applied to glass. This differs from the claims in that Angeline does not specifically teach a total anion content.

To this extent, the Examiner tried to determine what an typical or an expected anion content of  $\text{CaCO}_3$  is in deionized water. It appears that 700 mg/L of  $\text{CaCO}_3$  (which corresponds to 14,000 ppm<sup>1</sup>) is well within the range of conventional or typical amounts of  $\text{CaCO}_3$  for deionized water.

To support the Examiner's position of what is conventional or typical in the art, the Examiner refers to several references that teach deionized water and establishes a what can be considered to be a conventional amount. See 1) 5,250,185, Table 1, 2) 6,537,456, Table 1, 3) 5,811,012, Table 1, 4) 5,518,627, column 20, line 65 and 5) 6,929,748, Table 1. These references all teach deionized water having a calcium content significantly lower than the upper limit claimed. From this the skilled artisan

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<sup>1</sup> See 4,658,059, column 9, lines 15 to 17, which teaches this conversion.

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would have expected that the deionized water used in Angeline to inherently meet the requirement claimed. In this manner the composition in Angeline anticipates the instant claims.

On the other hand, one having ordinary skill in the art would have found the use of deionized water having a  $\text{CaCO}_3$  content of less than 700 mg/L to have been obvious in view of the fact that many deionized waters have  $\text{CaCO}_3$  contents within this range. In this manner the instant claims are rendered obvious.

The Examiner notes that applicants believe that a  $\text{CaCO}_3$  content of greater than 700 mg/L will result in gelation (see the working examples in the specification). Please note that the composition of Angeline does not gel.

For the limitations found in claims 5 and 6, please note that products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. For the limitation found in claim 19 note that the composition of Angeline is applied to the outer surface of a glass windshield.

4. Claims 7, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angeline.

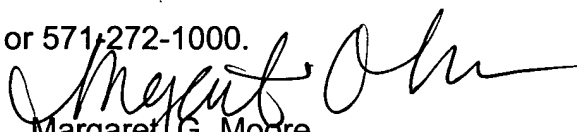
The prior art fails to specifically teach a thickness for the coating composition but column 8, line 12, teaches that the coating is a thin layer. One having ordinary skill in the art would have been motivated to adjust the thickness of the composition in Angeline in an effort to determine what is an optimum or operable "thin" layer. In this manner the skilled artisan would have found this claim limitation obvious.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Margaret G. Moore  
Primary Examiner  
Art Unit 1712

mgm  
12/15/06